

October 17, 2006

TO: Members of the MAG PSAP Managers Group

FROM: Chris Nadeau, Goodyear, Chair

SUBJECT: TRANSMITTAL OF ADDENDUM TO THE OCTOBER 19, 2006 PSAP MANAGERS  
GROUP AGENDA

An addendum to the agenda for the October 19, 2006 meeting of the MAG PSAP Managers Group is noted below. The purpose of the addendum is to allow for a possible recommendation for approval of an amendment to the FY 2007 PSAP Annual Element/Funding Request. If you have any questions regarding the addendum, please contact Liz Graeber, 9-1-1 Administrator, at 602-534-9775, or Mary Franklin at 602-262-6260.

TENTATIVE AGENDA

12. MAG FY 2007 PSAP Annual  
Element/Funding Request Amendment

The Phoenix Police Department is scheduled for a 9-1-1 phone system upgrade for 58 positions, along with 44 new positions, at its two locations at 620 W. Washington and 100 E. Elwood. The two PSAP locations will handle 9-1-1 traffic simultaneously. This project was originally requested in FY 2006 in the amount of \$1,850,000. Due to facility issues, the project was delayed to FY 2007. In addition, two PBX switches and equipment to run the two centers simultaneously require an upgrade for 58 positions. This project will now require a total of \$3.5 million. The Phoenix Fire Department is scheduled for a 9-1-1 system

COMMITTEE ACTION REQUESTED

12. Information, discussion and possible action to recommend approval of the amendment to the FY 2007 PSAP Annual Element/Funding Request.

upgrade for 18 positions, along with five new positions. This project will require \$750,000. The Scottsdale Police Department is scheduled for a 9-1-1 system upgrade for 11 positions, along with four new positions. This project will require \$400,000. These costs are currently paid by the 9-1-1 state excise tax. An amendment to the FY 2007 PSAP Annual Element/Funding Request is needed to fund these projects. According to the adopted policy for making changes to the approved PSAP funding request, the MAG 9-1-1 Oversight Team, the MAG Management Committee, and the MAG Regional Council are required to consider budget changes greater than 50 percent of the total equipment budget. The PSAP Managers are requested to make a recommendation on the amendment to the MAG Oversight Team. Please refer to the enclosed material.



## City of Phoenix

POLICE DEPARTMENT

April 28, 2004

Phoenix Fire Department  
150 South 12<sup>th</sup> Street  
Phoenix, Arizona 85034

Attn: Susan MacFarlane, 9-1-1 Administrator

Dear Ms. MacFarlane:

The purpose of this letter is to justify the budget requests in FY 2006.

In FY 2006, we are requesting to upgrade all 9-1-1 equipment at 620 W. Washington. This facility has been our back-up site for the past twelve years. We have outgrown our main site and are now going to be using our back-up site as a dual main. We will be operating both sites simultaneously. The call volume at the Phoenix Police Department PSAP is increasing dramatically. Incoming 9-1-1 calls have increased by 5% in the first three months of this year. Only 84% of these calls are being answered within 10 seconds. This is an unacceptable service level for a 9-1-1 center to provide to customers. There are times where we do not have enough 9-1-1 workstations to accommodate the call takers on duty. We have workstations at our back-up site which are available but are not equipped for long term use and are a different platform than our main site which causes connectivity issues with other equipment. We have used these workstations on New Year's Eve to provide better service to our customers. If these 44 available positions were equipped with Vesta equipment, it would help this PSAP to function at the best possible level and bring us to a point where we are meeting the standard of answering 90% of incoming 9-1-1 calls within 10 seconds.

If you have any questions pertaining to this matter or need further clarification, please contact Tami L. deRuiter at 262-6070 for assistance.

Sincerely,

JACK F. HARRIS  
Police Chief

*Commander D Faulkner 4139*

DAVID L. FAULKNER  
Commander  
Communications Bureau

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Enclosure: 9-1-1 PSAP Upgrade Request Document

**City of Phoenix**FIRE DEPARTMENT  
DEPLOYMENT

20 October 2005

Ms. Liz Hunt  
Interim Region 911 Administrator  
150 South 12<sup>th</sup> Street  
Phoenix, Arizona 85034

Dear Liz:

The City of Phoenix Fire Department is requesting an adjustment to the MAG Equipment Funding request submitted for budget years 2004-2008 on 7 March 2002.

The request for FY2003-2004 to purchase one (1) Logging Recorder and eight (8) Workstations and FY2006-2007 to change the backroom to a digital switch was subsequently modified while working with Ms. Susan MacFarlane during her tenure as the Region 911 Administrator. The Fire Department received the Logging Recorder in FY2004-2005 and is scheduled to receive the Nortel Meridian Digital Switch with FY2005-2006 funding. The number of Workstations was modified from eight (8) to five (5) when Phoenix Fire Department Regional Dispatch Center (PFDRDC) began its current major remodel in 2004, and space limitations were identified. Our Department was under the impression that the justification for this change and expenditure had been submitted and approved by the State. As you know, we have had many conversations with your personnel regarding these impending changes.

Apparently the State never received our request and due to the departure of Ms. MacFarlane and our Telecommunications System Manager, Mr. Andy MacFarlane (her husband), we are attempting to correct this situation by making this formal request to purchase five (5) fully functional Computer Telephony Integrated (CTI) phone systems with PowerMap and Power911. The Phoenix Fire Department is requesting that this be funded in FY2005-2006 to allow all installations (new equipment and furniture with remodel) at one (1) time. The logistics of the installation will be demanding at best. It is our intent to reduce unnecessary stress to the Emergency Dispatcher, reduce the liability inherent with a phase-over of equipment and the liabilities associated with not having adequate workstations to handle the traffic load.

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Currently the Phoenix Fire Department Regional Dispatch Center (PFDRDC) provides fire and emergency medical dispatching services for twenty (20) jurisdictions directly and three (3) entities indirectly. This covers the vast majority of Maricopa County and its population with a service area of over 2,000 square miles. PFDRDC is on track to dispatch 327,000 calls for service and will handle an estimated 1.3 million telephone calls in 2005. Our dispatch center is the second busiest center (behind Phoenix Police Department who is our primary PSAP), in the State and is vital to the citizens of Central Arizona.

### Phoenix Fire Department Regional Dispatch Center

YEAR	TOTAL DISPATCHES	TELEPHONE CALLS SERVICED*	AVERAGE TELEPHONE CALLS PER HOUR	PERCENT OF INCREASE
1980	117,406	293,515	33.5	
1990	135,933	339,833	38.8	15.8
1995	173,145	519,435	59.3	52.8
1996	177,402	532,206	60.8	2.4
1997	174,771	611,699	69.8	14.9
1998	184,593	646,076	73.8	5.6
1999	197,184	690,144	78.8	6.8
2000	206,838	827,352	94.4	19.8
2001	230,962	923,848	105.5	11.6
2002	237,631	950,524	108.5	2.8
2003	243,780	975,120	111.3	2.5
2004	253,213	1,012,852	115.6	3.8
2005*	327,000	1,300,000	148.4	22.1

\*Estimated

Our Emergency Dispatchers are cross-trained in all five (5) separate job function areas: Call Taker (Phones), Channel One Dispatcher, Tactical Radio Operator (TRO), Medic and Fire Prevention/Life Safety Hotline positions, and rotate responsibilities during their assigned shift.

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The PFDRDC is working through a significant staffing deficiency with a five (5) year plan to bring our total number of Emergency Dispatchers from 48.7 in 2004 to a total of 75.7 by FY2009-2010. We are training two (2) classes per year, allowing for a six (6) month training period with each class. We have been working our training schedule around the availability of workstations but with the increased staffing levels we have received to date, we no longer have that option available to us.

Currently PFDRDC operates with eighteen (18) workstations dedicated to fire and emergency medical dispatching functions including call taking, dispatching, tactical radio, medic, special events/special operations, Inter-operability radio communications, fire prevention/life safety, dispatcher trainee and supervisory support from a command officer, supervisor and lead dispatcher.

#### **PFDRDC's Current Staffing Levels**

Shift	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Day	18	18	18	18	18	18	18
Swing	18	18	18	18	18	18	18
Night	18	18	18	18	18	18	18

Currently, during times of high activity when the need arises to hire back additional staffing, we do not have workstations to facilitate our needs. In January 2006 we will hire six (6) Emergency Dispatchers and are faced with the lack of available workstations for new hire training, as well as, the placement of those Emergency Dispatchers who are presently in our training curriculum.

#### **Maricopa County Population**

Year	1970	1980	1990	2000	2010
Population	967,522	1,509,052	2,122,101	3,072,149	3,982,429
Increase	31.4%	35.8%	28.8%	30.9%	22.8%

US Bureau of the Census

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As the population in the valley continues to grow rapidly, the requests for service will increase exponentially. This coupled with ever-increasing Homeland Security issues and the life span of equipment and facilities, is causing us to ask for funding through the City of Phoenix Capital Improvement Program (Bond), to build a new Regional Dispatch Center that will run concurrent to and replicate the existing dispatch center on a 24-hour basis.

We know this is a long-term solution to an immediate problem. Therefore, we request your timely consideration to fund five (5) fully functional Computer Telephony Integrated (CTI) phone systems with PowerMap and Power911 in the FY 2005-2006 to be installed in conjunction with the Nortel Meridian Digital Switch.

Thank you for your assistance in this matter. Please feel free to call me should you have any questions. I can be reached at (602) 534-0381/office or (602) 920-6097/cell.

Sincerely,

A handwritten signature in black ink, appearing to read "Doug Mummert". The signature is fluid and cursive, with the first name "Doug" being more prominent than the last name "Mummert".

Doug Mummert  
Division Chief/PSAP Manager  
Phoenix Fire Department



POLICE DEPARTMENT  
*An Internationally Accredited  
Police Agency Since 1994*

9065 E. VIA LINDA  
SCOTTSDALE, AZ 85258

(480) 312-5000  
(480) 312-5097 FAX

August 16, 2006

Liz Hunt  
911 Administrator  
Maricopa Region

Liz:

Please accept this letter to supplement the previously supplied statistical data from the City of Scottsdale Police Department PSAP as the formal request for additional CTI equipment to increase the number of fully functional positions from eleven to fifteen in order to ensure neither service levels nor the needs of the professionals providing this service are compromised.

Due to advances in technology, increased service expectations, rising homeland security concerns, and population growth, the demand for public safety service has grown significantly over the last several years. Between 1999 and 2005 alone, there was a 72.1% increase in Scottsdale's population.<sup>1</sup> Moreover, one of the most dramatic changes made in the past 10 years that will affect the manpower needed is the proliferation of wireless calls made to 9-1-1 centers. This will significantly increase call volume and the time it takes to process a call.<sup>2</sup>

There is no question that Scottsdale, like numerous other multi stage public safety operations, has responded to this trend by providing additional training, reallocating resources, and most importantly, identifying critical staffing levels and ensuring there are enough personnel assigned to all shifts. In the 2002/2003 budget, for example, an additional 21 dispatchers were requested. While Scottsdale has also added additional supervisory personnel, the key issue identified at that time ensuring there was a sufficient number of dispatchers so supervisors could spend their time supervising as opposed to filling dispatch positions.<sup>3</sup>

According to APCO Project (40) - Responsive Efforts To Address Integral Needs in Staffing (RETAINS), "to fulfill the mission of a 9-1-1/PSCC and provide efficient service to the public and the Law Enforcement, Fire/Rescue and EMS agencies served, requires that an adequate number of qualified personnel be on duty in the Communications Center. Methodologies for establishing adequate and acceptable staffing levels to ensure the services

<sup>1</sup> Greater Phoenix Economic Council, GPEC Information Center *City of Scottsdale Profile*

<sup>2</sup> From the March 2001 issue of Public Safety Communications/APCO BULLETIN

<sup>3</sup> Berkshire Recommendation #253.28/*Increase Communications Unit Staffing* and #253.33/*Increase Communications Unit Supervision*





levels expected by the public and required by the Law Enforcement, Fire/Rescue, and EMS agencies served should be adopted and utilized.”

Using the NENA model as the primary methodology for determining necessary staffing allocations, Scottsdale Police Department requires an average of six calltakers and four radio dispatchers to address service volume.<sup>4</sup> Including a minimum of one supervisor on duty, SPD Communications has exhausted its current allocation of CTI workstations. These averages, based on 24-hour staffing, the daily relief factor, the necessity for a minimum of four operational radio talkgroups, do not even begin to address additional components of police communications, including emergency and critical incidents, special events, and training equipment, and the effect they have on required resources. Furthermore, it is important to acknowledge that staffing averages are just that – numerical statistics based upon a 24-hour period – and as evidenced by an hour-by-hour analysis of call volume, certain hours of the day inarguably require more staffing than others. With current resource allocation, however, SPD does not have the equipment to facilitate staffing as identified by one of the industry leaders beyond what was intended as an *average* for staffing.

Using current resources and existing staffing allocation models, it is possible for as many as sixteen Communications employees to be on duty at one time – a number that far exceeds the number of positions available to provide calltaking and radio dispatch services with existing equipment. The ramifications of failing to ensure the necessary equipment is available for public safety personnel range from increased likelihood of emergency call rollover to decreased service levels. Furthermore, the short and long term effect on Communications Center personnel often leads to staffing issues, personnel being overworked because the centers are understaffed and attrition rates increase.<sup>5</sup>

Another rapidly increasing consequence of overworked Communications personnel is the incidence of repetitive motion injuries, which can be directly linked to poor ergonomics and insufficient periods of rest. An extensive ergonomic evaluation recently performed by Scottsdale Healthcare inarguably identified the need to decrease the workload on individual employees by providing additional positions and personnel among whom call volume could be divided and the need to increase the frequency of breaks.

Industry experts have repeatedly confirmed the need for Communications Centers to provide sufficient personnel and equipment to perform the critical duties of our positions and the importance of proper ergonomics while doing so. As part of Project (40) RETAINS (Responsive Efforts To Address

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<sup>4</sup> Northwestern University Center for Public Safety *Staffing Recommendations for the SPD Communications Division Using the NENA Method*

<sup>5</sup> Yvonne Klees, *Comm Center Staffing Formulas - Old Studies in a New Environment*

Integral Needs in Staffing), for example, APCO recognized that to achieve the best working conditions possible, Communications Centers must adopt appropriate staffing methodologies and allow for employee breaks as needed. Furthermore, after a review of the MAG FY 2006-2010 Equipment Program, it was noted that most of the items were for additional positions due to growth<sup>6</sup>; the City of Scottsdale is no exception to this trend. There is no question that in order to ensure the continued success of the public safety services we provide, we must have the additional hardware and software for our professionals to utilize in doing so.

Thanks

A handwritten signature in black ink, reading "Tom Melton". The signature is written in a cursive, flowing style.

Tom Melton  
Communications Manager  
Scottsdale Police Department

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<sup>6</sup> MAG 9-1-1 Oversight Team Meeting Minutes, February 23, 2005